

**ABSTRACT OF THE DISCLOSURE**

An ultra wideband communication system, in which first preamble for synchronization is generated using an aperiodic sequence with an aperiodic correlation property, and second preamble for channel estimation is generated using the aperiodic sequence or a periodic sequence with a periodic correlation property. The first and second preambles are multiplexed to be transmitted as a preamble of the UWB communication system.